

U.S. Patent Application No.: 10/719,780
Filing Date: November 21, 2003
Response dated June 1, 2005

PATENT
Attorney Docket No. 713-56-PA

REMARKS/ARGUMENTS

This paper is submitted in response to the Office Action mailed March 11, 2005.
Reconsideration is respectfully requested.

Claims 1-14 were examined. Claims 1 and 11-13 were rejected under 35 U.S.C. Section 103(a) as unpatentable over US 4,176,986 – Taft et al. in view of US 6,786,679 – Huang et al. Claims 2-10 and 14 were objected to as depending from rejected claims, but were held to define patentable subject matter. As explained below, the rejection is respectfully traversed, and Applicant contends that all of the claims, as filed, are patentable over the art of record.

Claim 1 defines an improved buoyancy can, of the type having an axial bore through which a riser extends coaxially (that is, coaxially with the bore, not necessarily with the can; see, e.g., Fig. 10), wherein the improvement comprises a radio-axial slot extending from a side of the can to the bore, the slot having a width that is greater than the diameter of the riser. This structure allows the can to be installed on the riser simply by slipping the riser through the slot into the bore, where the riser is held by means of at least one of the disclosed support features.

The Taft et al. reference shows a buoyancy can comprising two semi-cylindrical sections 80, 81 that form an axial bore through which a riser extends when the can sections are joined together. The sections are mounted around a riser joint, and they are strapped together around the riser by means of straps 83, 84. See Figs. 4-6, and column 6, lines 63-66. As admitted in the Office Action, there is no suggestion of a radio-axial slot in the can structure having a width greater than the diameter of the riser. Indeed, the straps 83, 84 would preclude the insertion of the riser into the axial bore through the side of the assembled can structure, even if there were a radio-axial slot of sufficient width. Thus, the Taft et al. references relates to a structure that not only cannot function as does the claimed invention, it is not readily adapted to do so, and could not be so adapted without substantially altering the way its buoyancy can is constructed and installed.

The Huang et al. reference was cited for its disclosure of a “buoyancy can 47...having [a] vertical axial bore (fig. 10) through which the cylinder 15 extends coaxially having a radio-axial slot extending through a side of the can with the slot having a width greater than the diameter of

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the cylinder." It was the Examiner's position that "it would have been obvious...to modify Taft, as taught by Huang, to include a slotted opening to easily attach the buoyancy can to the riser...." Applicant respectfully disagrees.

First, Applicant respectfully submits that the Huang et al. reference does not teach or suggest a buoyancy can having an axial bore and a radio-axial slot extending through the side of can to the bore. Instead, the structure 11 disclosed in Huang et al. is a platform, comprising a horseshoe-shaped "buoyant member 47" and a "tower section 15," wherein the buoyant member 47 defines a slot 55 in which the tower section 15 is received. (See, column 6, lines 19-34, and Figs. 9 and 10). The buoyant member 47 is not described as a buoyancy can, nor does it function as such. Specifically, a "buoyancy can," as described in the subject application, and as commonly understood in the art to which the present invention pertains, is a buoyant member that supports a riser independently of a floating production platform. In the Huang et al. reference, by contrast, the buoyant member is a part of the platform 11, and has no riser-supporting function. (The tower section 15, which is received in the slot 55 of the buoyant member 47, is a structural part of the platform 11, and not a riser.)

Therefore, there is nothing in the Huang et al. reference to suggest a buoyancy can that supports a riser. Without such a teaching or suggestion, the combination of Taft et al. and Huang et al. posited by the Examiner would not suggest itself to those skilled in the pertinent arts. Furthermore, even if, for the sake of argument, the Huang et al. reference can be read in the manner suggested by the Examiner, there is nothing in the Taft et al. reference, as discussed above, to suggest that it could or should be modified by the provision of a radio-axial slot dimensioned as defined in claim 1, whereby a riser can pass through the slot into an axial bore.

It is therefore respectfully submitted that claim 1 is patentable over the cited art, taken singly or in any combination that might reasonably suggest itself to those skilled in the pertinent arts. Likewise, claims 11 and 12, which depend from claim 1, should also be patentable over the art of record.

Claim 13 defines a method of supporting a riser using a buoyancy can of the type defined in claim 1. Neither of the cited references teaches or suggests such a method, nor does the

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combination of these references suggest such a method, because, as explained above, neither of the references, taken singly or in any combination that might reasonably suggest itself to those skilled in the pertinent arts, would teach or suggest a buoyancy can as defined in claim 13. It is therefore respectfully submitted that claim 13 defines patentably over the art of record.

It is therefore respectfully submitted that claims 1-14 are patentable over the art of record and should be allowed.

Accordingly, passage of the application to issue is respectfully requested. Should there be any further issues remaining to be resolved, the Examiner is respectfully requested to telephone the undersigned to expedite the prosecution of the application to issue.

Respectfully submitted,

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